February 27, 2002

Mr. Jeff Kime
Four Winds International, Inc.
P.O. Box 1486
Elkhart, IN 46515-1486

Re: 039-15345
First Minor Revision to
FESOP 039-5814-00220

Dear Mr. Kime:

Four Winds International, Inc. was issued a FESOP on December 9, 1996 to operate a motor home/recreational vehicle manufacturing source located at 701 CR 15, Elkhart, IN 46516. A letter requesting changes to this permit was received on December 27, 2001. Pursuant to the provisions of 326 IAC 2-8-11.1(d), a minor permit revision to this permit is hereby approved as described in the attached Technical Support Document (TSD).

The revision consists of the approved operation of the following emission units:

One (1) Class A - Line 2 (Diesel Pusher Production Line), producing a maximum of 0.375 units per hour, installed in 2002, consisting of the following:

(a) One (1) sub-assembly area, identified as AS-A3, consisting of:

(1) hand, roll, bead and aerosol spray application of miscellaneous coatings and adhesives applied to metal, wood construction materials and pre-finished wood cabinets, plastic, and fiberglass product parts during motor home assembly, with emissions exhausting fugitively into the building; and

(2) hand and aerosol spray application of miscellaneous solvents and cleaners.

(b) One (1) final finish area, identified as AFF-3, consisting of:

(1) hand and aerosol spray application of miscellaneous coatings applied to metal, wood construction materials and pre-fabricated cabinets, and fiberglass parts during motor home finishing and touch-up, with emissions exhausting fugitively into the building; and

(2) hand and aerosol spray application of miscellaneous solvents and cleaners.

The following construction conditions are applicable to the proposed project:

1. General Construction Conditions
   The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
   Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the minor permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Michael Hirtler, c/o OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or at 973-575-2555, extension 3229, or in Indiana at 1-800-451-6027.

Sincerely,

Original Signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments (Revised FESOP pages; TSD; Emission Calculations)
MH / EVP
c: File - Elkhart County
Elkhart County Health Department
IDEM Northern Regional Office
Air Compliance Section Inspector - Paul Karkiewicz
Compliance Data Section - Karen Nowak
Administration and Development - Khira Barua
Technical Support and Modeling - Michele Boner

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

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FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) OFFICE OF AIR QUALITY

Four Winds International, Inc.
701 County Road 15
Elkhart, Indiana 46515-1486

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F039-5814-00220	
Original issued by Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: December 9, 1996
First Administrative Amendment: AAF039-8246	Pages Affected: 25, 26 Issuance Date: October 14, 1997
Second Administrative Amendment: AAF039-9038	Pages Affected: 23, 25 Issuance Date: November 10, 1997
Third Administrative Amendment: AAF039-9208	Pages Affected: 24, Added page 1A Issuance Date: December 3, 1997
Fourth Administrative Amendment: AAF039-9861	Pages Affected: none Issuance Date: July 8, 1998
Significant Permit Revision: F 039-10568-00220	Pages Affected: 1, 2, 4, 6-29, 30, 31, 32 and 33 Added pages: 1a, 5a, 5b, 29a-29l, 33a and 33b Issuance Date: June 8, 1999

Minor Permit Revision: F039-15345-00220	Pages Affected: 1a, 3, 5a-5c, 29p-29r
Issued by: Original Signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: February 27, 2002

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(3) one (1) sidewall and roof assembly area with a maximum capacity of 1,638 pounds of wood and metal per hour and consisting of:
  (i) aluminum tube cutting, identified as SR3, with a maximum capacity of 500 pounds of aluminum tube per hour and exhausting within the building;
  (ii) wood and foam cutting, identified as SR4, with a maximum capacity of 300 pounds of wood and foam per hour, utilizing a cyclone (C3) as particulate control and exhausting within the building;
  (iii) custom plywood cutting, identified as SR5, with a maximum capacity of 100 pounds of plywood insulation per hour and exhausting within the building; and
  (iv) hand routing, identified as SR6, with a maximum capacity of 500 pounds of plywood insulation per hour, utilizing a cyclone (C4) as particulate control and exhausting within the building.

(f) Class A final finish area with a maximum capacity of 48,019 pounds per hour of unfinished motor homes per hour, utilizing a cyclone (C3) as particulate control and consisting of:
  (1) one (1) adhesive application operation, identified as FF1, with a maximum capacity of 2 unfinished motor homes per hour, utilizing caulk, airless/aerosol, and air assisted application systems and dry filters for overspray control and exhausting through stack F-3-1; and
  (2) wood trim cutting, identified as FF2, with a maximum capacity of 10 pounds of wood per hour, utilizing a cyclone (C3) as particulate control and exhausting within the building.

(g) One (1) Class A - Line 2 (Diesel Pusher Production Line), producing a maximum of 0.375 units per hour, installed in 2002, consisting of the following:
  (1) One (1) sub-assembly area, identified as AS-A3, consisting of:
    (A) hand, roll, bead and aerosol spray application of miscellaneous coatings and adhesives applied to metal, wood construction materials and pre-finished wood cabinets, plastic, and fiberglass product parts during motor home assembly, with emissions exhausting fugitively into the building; and
    (B) hand and aerosol spray application of miscellaneous solvents and cleaners.
  (2) One (1) final finish area, identified as AFF-3, consisting of:
    (A) hand and aerosol spray application of miscellaneous coatings applied to metal, wood construction materials and pre-fabricated cabinets, and fiberglass parts during motor home finishing and touch-up, with emissions exhausting fugitively into the building; and
    (B) hand and aerosol spray application of miscellaneous solvents and cleaners.

A.3 Insignificant Activities

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(20):

(a) Natural gas fired combustion units with heat input capacities equal to or less than ten million (10,000,000) BTU per hour.
  (1) four (4) air make up units each with a rated heat input of 0.58 MMBtu per hour, identified as A-1-1 through A-1-4;

(2) one (1) space heater with a rated heat input of 0.20 MMBtu per hour, identified as ID3;
(3) two (2) space heaters each with a rated heat input of 0.15 MMBtu per hour, identified as ID6 and ID7;
(4) two (2) space heaters each with a rated heat input of 0.25 MMBtu per hour, identified as ID64 and ID65;
(5) six (6) space heaters each with a rated heat input of 0.10 MMBtu per hour, identified as ID14 and ID32 through ID53;
(6) one (1) water heater with a rated heat input of 0.03 MMBtu per hour, identified as ID10;
(7) five (5) air make up units each with a rated heat input of 0.56 MMBtu per hour, identified as A-2-1 through A-2-5;
(8) one (1) space heater with a rated heat input of 0.06 MMBtu per hour, identified as H-2-1;
(9) two (2) space heaters each with a rated heat input of 0.03 MMBtu per hour, identified as H-2-2 and H-2-3;
(10) one (1) space heater with a rated heat input of 0.10 MMBtu per hour, identified as H-2-4;

(11) eight (8) space heaters each with a rated heat input of 0.10 MMBtu per hour, identified as H-2-5 through H-2-12;
(12) one (1) water heater with a rated heat input of 0.05 MMBtu per hour, identified as W-2-1; and
(13) one space heater with a rated heat input of 0.06 MMBtu per hour, identified as HP-3-1.

(b) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons;
(c) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs;
(d) Water based adhesives that are less than or equal to 5% by volume of VOCs excluding HAPs;
(e) Paved and unpaved roads and parking lots with public access;
(f) The following VOC and HAP storage containers:
(1) Vessels storing lubricating oils, hydraulic coils, machining oils and machining fluids;
(g) Application of oils, greases, lubricants or other non-volatile materials applied as temporary protective coatings;
(h) Cleaners and solvents characterized as:
(1) Having a vapor pressure equal to or less than 2 kPa; 15mm Hg; or 0.3 psi measured at 38EC (100EF) or;
(2) Having a vapor pressure equal to or less than 0.7 kPa; 5mm Hg; or 0.1 psi measured at 20EC (68EF); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.
(i) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons;
(j) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs; and
(k) Paved and unpaved roads and parking lots with public access.
(l) Activities or categories not previously identified with emissions less than or equal to insignificant thresholds:
(1) steel tube welding, identified as FA1, with a maximum capacity of 50 pounds of welding wire per hour and exhausting within the building; and
(2) aluminum tube welding, identified as SR1, with a maximum capacity of 25 pounds of welding wire per hour and exhausting within the building.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP).

SECTION D.8 FACILITY CONDITIONS

Facility Description [326 IAC 2-8-4(10)]

(g) One (1) Class A - Line 2 (Diesel Pusher Production Line), producing a maximum of 0.375 units per hour, installed in 2002, consisting of the following:

(1) One (1) sub-assembly area, identified as AS-A3, consisting of:

(A) hand, roll, bead and aerosol spray application of miscellaneous coatings and adhesives applied to metal, wood construction materials and pre-finished wood cabinets, plastic, and fiberglass product parts during motor home assembly, with emissions exhausting fugitively into the building; and

(B) hand and aerosol spray application of miscellaneous solvents and cleaners.

(2) One (1) final finish area, identified as AFF-3, consisting of:

(A) hand and aerosol spray application of miscellaneous coatings applied to metal, wood construction materials and pre-fabricated cabinets, and fiberglass parts during motor home finishing and touch-up, with emissions exhausting fugitively into the building; and

(B) hand and aerosol spray application of miscellaneous solvents and cleaners.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 326 IAC 2-8-11.1, WITH CONDITIONS LISTED BELOW.

Construction Conditions

General Construction Conditions

D.8.1 This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

Effective Date of the Permit

D.8.2 Pursuant to IC 13-15-5-3, this section of this permit becomes effective upon its issuance.

D.8.3 All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for revisions pursuant to 326 IAC 2.

Operation Conditions

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.8.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

Any change or modification which may increase potential VOC emissions to twenty-five (25) tons per year at sub-assembly area AS-A3 or final finish area AFF-3 shall require OAQ's prior approval before such change can take place at either area. The VOC usage for wood furniture/cabinet coating at sub-assembly area AS-A3, and final finish area AAF-3, are not included in this determination for either area since such usage is regulated at Condition D.8.6.

D.8.5 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]

Any change or modification which may increase actual VOC emissions to fifteen (15) pounds per day when coating metal at sub-assembly area AS-A3 or final finish area AFF-3 shall require OAQ's prior approval before such change can take place at either area.

D.8.6 Volatile Organic Compounds (VOC) [326 IAC 8-2-12]

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), surface coatings applied to wood furniture and cabinets at sub-assembly area AS-A3 and final finish area AAF-3 shall utilize one of the following application methods:

Airless Spray Application
Air Assisted Airless Spray Application
Electrostatic Spray Application
Electrostatic Bell or Disc Application
Heated Airless Spray Application
Roller Coating
Brush or Wipe Application
Dip-and-Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

D.8.7 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter as overspray from the spray coatings applied at Class A - Line 2 sub-assembly area AS-A3 and final finish area AFF-3 each shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Compliance Determination Requirements

D.8.8 Volatile Organic Compounds (VOC)

Compliance with the VOC emission limitations contained in Conditions D.8.4 and D.8.5 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer.

D.8.9 VOC Emissions

Compliance with Condition D.8.4 shall be demonstrated within 30 days of the end of each month based on the total VOC usage for the most recent twelve (12) month period.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

There are no applicable compliance monitoring conditions for these facilities.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.8.10 Record Keeping Requirements

(a) To document compliance with Conditions D.8.4, D.8.5 and D.8.6, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly, except where noted, and shall be complete and sufficient to establish compliance with the VOC usage/emission limits established in D.8.4, D.8.5 and D.8.6.

(1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(2) Method of application for wood furniture coatings used at sub-assembly and final finish areas AS-A3 and AFF-3;

(3) Monthly VOC usage for each of sub-assembly and final finish areas AS-A3 and AFF-3; and

(4) Daily VOC usage at each of sub-assembly and final finish areas AS-A3 and AFF-3, when coating metal parts.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Reporting Requirements

There are no applicable reporting requirements for these facilities.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Minor Permit Revision to a Federally Enforceable State Operating Permit (FESOP)

Source Background and Description

Source Name:	**Four Winds International, Inc.**
Source Location:	**701 CR 15, Elkhart, IN 46516**
County:	**Elkhart**
SIC Code:	**3716**
Operation Permit No.:	**F039-5814-00220**
Operation Permit Issuance Date:	**December 9, 1996**
Minor Permit Revision No.:	**039-15345-00220**
Permit Reviewer:	**Michael Hirtler / EVP**

The Office of Air Quality (OAQ) has reviewed a revision application from Four Winds International, Inc. relating to the construction and operation of the following new production line at the existing motor home/recreational vehicle manufacturing source:

One (1) Class A - Line 2 (Diesel Pusher Production Line), producing a maximum of 0.375 units per hour, installed in 2002, consisting of the following:

(a) One (1) sub-assembly area, identified as AS-A3, consisting of:

(1) hand, roll, bead and aerosol spray application of miscellaneous coatings and adhesives applied to metal, wood construction materials and pre-finished wood cabinets, plastic, and fiberglass product parts during motor home assembly, with emissions exhausting fugitively into the building; and

(2) hand and aerosol spray application of miscellaneous solvents and cleaners.

(b) One (1) final finish area, identified as AFF-3, consisting of:

(1) hand and aerosol spray application of miscellaneous coatings applied to metal, wood construction materials and pre-fabricated cabinets, and fiberglass parts during motor home finishing and touch-up, with emissions exhausting fugitively into the building; and

(2) hand and aerosol spray application of miscellaneous solvents and cleaners.

History

On December 27, 2001, Four Winds International, Inc. submitted an application to the OAQ requesting to install a new production line at their existing plant. Four Winds International, Inc. was issued FESOP No. F039-5814-00220 on December 9, 1996.

Existing Approvals

The source was issued FESOP F039-5814-00220 on December 9, 1996. The source has since received the following:

(a) First Administrative Amendment No. 039-8246, issued on October 14, 1997;

(b) Second Administrative Amendment No. 039-9038, issued on November 10, 1997;

(c) Third Administrative Amendment No. 039-9208, issued on December 3, 1997;

(d) Fourth Administrative Amendment No. 039-9861, issued on July 8, 1998; and

(e) First Significant Permit Revision No. 039-10568, issued on June 8, 1999.

The source has since been operating under these approvals.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

There are no new stacks dedicated to the new production line.

Recommendation

The staff recommends to the Commissioner that the Minor Permit Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on December 27, 2001.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (four (4) pages).

Potential To Emit for the Revision

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	8.01
PM-10	8.01
SO_2	0.00
VOC	24.97
CO	0.00
NO_x	0.00

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
xylene	0.07
methyl ethyl ketone (MEK)	0.06
toluene	1.38
methyl isobutyl ketone (MIBK)	0.58
ethyl benzene	0.01
glycol ethers	0.17
methanol	0.05
hexane	0.56
TOTAL	2.88

Justification for Revision

The FESOP is being revised through a FESOP Minor Permit Revision, based on the following justification:

(a) This revision is being performed pursuant to 326 IAC IAC 2-8-11.1(d)(4)(A) since the potential to emit PM and PM10 from this revision are both less than 25 tons per year and equal to or greater than 5 tons per year.

(b) This revision is being performed pursuant to 326 IAC IAC 2-8-11.1(d)(4)(D) since the potential to emit VOC from this revision is less than 25 tons per year and equal to or greater than 10 tons per year.

County Attainment Status

The source is located in Elkhart County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	maintenance
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) are a precursor for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as maintenance for ozone.

(b) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD and Emission Offset applicability.

Existing Source Status

Existing Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	42.20
PM10	42.20
SO_2	0.02
VOC	<100
CO	2.60
NO_x	3.10
single HAP	<10
total HAPs	<25

(a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.

(b) This existing source is not a Part 70 major stationary source because the potential to emit each criteria pollutant is less than the applicable level of 100 tons per year, and the single and combined HAP emissions are less than their respective applicable levels of 10 and 25 tons per year.

(c) These emissions are based upon the Technical Support Document to First Significant Permit Revision No. 039-10568, issued on June 8, 1999.

Potential to Emit After the Revision

The source, issued a FESOP on December 9, 1996, has opted to remain a FESOP source, rather than apply for a Part 70 Operating Permit. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of this Federally Enforceable State Operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit. The source's potential to emit includes the emission units included in the original FESOP and subsequent approvals.

	Potential to Emit After Issuance (tons/year)						
Process/emission unit	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
sub-assembly area AS-A3	2.47	2.47	0.00	7.25	0.00	0.00	0.56 (single)
final finish area AFF-3	0.21	0.21	0.00	0.81	0.00	0.00	0.06 (single)
misc. solvents & cleaners	0.11	0.11	0.00	16.9	0.00	0.00	1.38 (single)
Total PTE for Revision After Issuance	2.79	2.79	0.00	24.96	0.00	0.00	2.88 (total)
Total PTE for Source After Issuance	44.99	44.99	0.02	<100 (1)	2.60	3.10	<10 (single) <25 (total)

* See existing FESOP SPR No. 039-10568, issued on June 8, 1999, Section D, for specific limitation conditions.

PSD Threshold Level	250	250	250	250	250	250	N/A
Title V (Part 70) Threshold Level	100	100	100	100	100	100	10 (single) 25 (total)

(a) This revision to an existing minor stationary source is not major because the emission increase is less than the PSD threshold levels. Therefore, pursuant to 326 IAC 2-2 and 40 CFR 52.21, the PSD requirements do not apply. Also, the source will continue to be a minor stationary source after the revision because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and the source is not one of the 28 listed source categories. Therefore, the PSD requirements will continue to not apply to the source.

(b) This revision to the existing FESOP will not change the status of the stationary source because the emissions from the entire source will continue to be limited to less than the Part 70 major source thresholds.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source due to this revision.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 61) applicable to this source due to this revision.

(c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) for source categories (326 IAC 20 and 40 CFR Part 63) applicable to this source due to this revision. This source is still not subject to the NESHAP for source categories, 326 IAC 20-14, (40 CFR 63, Subpart JJ), *National Emission Standards for Wood Furniture Manufacturing Operations*, for its wood furniture coating processes since the source is not a major source of hazardous air pollutants pursuant to 40 CFR Part 63.2. The source shall continue to limit coating material usage such that source-wide single and combined HAP emissions are limited to less than 10 tpy and 25 tpy, respectively. Therefore this rule does not apply to the source due to this revision.

State Rule Applicability - Entire Source

326 IAC 2-2 and 40 CFR 52.21 (Prevention of Significant Deterioration, PSD)

This modification to an existing minor stationary source constructed after 1980 is not major because the emission increase is less than the PSD threshold levels. Therefore, pursuant to 326 IAC 2-2 and 40 CFR 52.21, the PSD requirements do not apply to this permit revision. Also, the source will continue to be a minor stationary source after the revision because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and the source is not one of the 28 listed source categories. Therefore, the PSD requirements will continue to not apply to the source.

326 IAC 2-6 (Emission Reporting)

This source continues to be subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of VOC and it is located in Elkhart County. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 2-8-4 (Federally Enforceable State Operating Permit Program)

This source is subject to 326 IAC 2-8-4 (FESOP), and pursuant to this approval and FESOP No. F039-5814-00220, issued December 9, 1996, the source will continue to limit source-wide PM-10 and VOC emissions to less than 100 tons per year. The source will also limit any single HAP and total HAPs to less than 10 and 25 tons per year, respectively. Therefore, the requirements of 326 IAC 2-7 (Part 70 Permit Program) are not applicable to the source due to this revision.

State Rule Applicability - Individual Facilities

326 IAC 1-6-3 (Preventive Maintenance Plan)

A Preventive Maintenance Plan (PMP) will not be required for the coating activities at the proposed Class A - Line 2 (Diesel Pusher Production Line) sub-assembly and final finish areas AS-A3 and AFF-3, respectively. These two (2) facilities do not have control devices and do not have actual emissions exceeding 25 tons per year (see TSD Appendix A for detailed emission calculations). Therefore, according to OAQ guidance on compliance monitoring plan requirements, the requirements for a PMP do not apply.

326 IAC 2-4.1-1 (New Source Toxics Control)

Pursuant to 326 IAC 2-4.1-1 (New Source Toxics Control), any new process or production unit, which in and of itself emits or has the PTE 10 tons per year of any HAP or 25 tons per year of the combination of HAPs, and is constructed or reconstructed after July 27, 1997, must be controlled using technologies consistent with Maximum Achievable Control Technology (MACT). This permit revision will not emit any single HAP at 10 tons per twelve (12) month period or combined HAPs at 25 tons per twelve (12) month period. Therefore, the requirements of 326 IAC 2-4.1-1 do not apply to this revision.

326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter as overspray from the spray coatings applied at Class A - Line 2 (Diesel Pusher Production Line) sub-assembly area AS-A3 and final finish area AFF-3 each shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Each of the Class A - Line 2 coating facilities, AS-A3 and AFF-3, are uncontrolled and exhaust into the production building. There will be no compliance monitoring conditions inserted into the permit for the two (2) facilities since they have no control devices and do not have actual emissions exceeding 25 tons per year (see TSD Appendix A for detailed emission calculations).

326 IAC 8-1-6 (New Facilities, General Reduction Requirements)

This rule applies to facilities located anywhere in the state that were constructed on or after January 1, 1980, which have potential volatile organic compound (VOC) emissions of 25 tons per year or more, and which are not otherwise regulated by another provision of Article 8. Sub-assembly area AS-A3 and final finish area AFF-3 are both subject to the rule requirements of 326 IAC 8-2-12 when coating wood cabinets/furniture during product assembly (see discussion below). Exclusive of VOC emissions regulated per 326 IAC 8-2-12, sub-assembly area AS-A3 and final finish area AFF-3 each have a potential to emit of VOC that is less than 25 tons per year. Therefore, the requirements of 326 IAC 8-1-6 do not apply to this revision and records will be kept of VOC usage to verify this status.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

Pursuant to 326 IAC 8-2-1 (Applicability) and 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), facilities constructed after July 1, 1990 located in any county, and with actual VOC emissions of greater than fifteen (15) pounds per day before add-on controls, shall limit the VOC content of the applied coating to 3.5 pounds of VOCs per gallon of coating less water, for air dried coatings. The miscellaneous metal coating activities at proposed Class A - Line 2 sub-assembly area AS-A3 and final finish area AFF-3 each have *potential* VOC emissions of well below 15 pounds per day (see TSD Appendix A for detailed emission calculations). Therefore, the requirements of this rule do not apply to either facility and records will be kept of VOC usage to verify this status.

326 IAC 8-2-12 (Wood Furniture and Cabinet Coating)

Pursuant to 326 IAC 8-2-1 (Applicability) and 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), facilities constructed after July 1, 1990 located in any county, and with actual VOC emissions of greater than fifteen (15) pounds per day before add-on controls, shall apply all coating materials, with the exception of no more than ten (10) gallons of coating per day used for touch-up and repair operations, using one or more of the stated application systems.

This source uses pre-fabricated, *pre-finished,* wood cabinets in the construction of motor homes. To attach the cabinets to the motor homes, the source uses adhesives, as well as touch-up coatings for product finishing. The total potential amount of VOC emitted from the proposed sub-assembly area AS-A3 exceeds 15 pounds per day, largely from adhesives usage. Although adhesives are applied to wood materials other than cabinetry (e.g., wood construction materials used to assemble the motor home frame), no distinction is made with respect to the use of the wood during product assembly and, therefore, AS-A3 is determined to be subject to the rule requirements. Final finish area AFF-3 has *potential* VOC emissions of less than 15 pounds per day of VOC and, therefore, the requirements of 326 IAC 8-2-12 do not apply to this facility. However, the source plans to use compliant coating application methods and has requested that the rule requirements be extended to AAF-3.

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), surface coatings applied to wood furniture and cabinets at sub-assembly area AS-A3 and final finish area AAF-3 shall utilize one of the following application methods:

Airless Spray Application
Air Assisted Airless Spray Application
Electrostatic Spray Application
Electrostatic Bell or Disc Application
Heated Airless Spray Application
Roller Coating
Brush or Wipe Application
Dip-and-Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

The source uses hand (brush or wipe), bead (airless), roller and aerosol (considered as airless) spray coating methods for all wood coating operations. Therefore, the source will comply with this rule.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

There are no new compliance monitoring conditions as a result of this proposed revision.

Proposed Changes to the FESOP

The following changes are made as the first Minor Permit Revision to FESOP No. F039-5814-00220. New language is shown in **bold** and deleted language is shown with a ~~line through it~~):

1. Section A.2 (Emission Units and Pollution Control Summary) is revised to incorporate a new paragraph (g) for the proposed new process line as follows:

A.2 Emission Units and Pollution Control Summary
The stationary source consists of the following emission units and pollution control devices:

(g) One (1) Class A - Line 2 (Diesel Pusher Production Line), producing a maximum of 0.375 units per hour, installed in 2002, consisting of the following:

(1) One (1) sub-assembly area, identified as AS-A3, consisting of:

(A) hand, roll, bead and aerosol spray application of miscellaneous coatings and adhesives applied to metal, wood construction materials and pre-finished wood cabinets, plastic, and fiberglass product parts during motor home assembly, with emissions exhausting fugitively into the building; and

(B) hand and aerosol spray application of miscellaneous solvents and cleaners.

(2) One (1) final finish area, identified as AFF-3, consisting of:

(A) hand and aerosol spray application of miscellaneous coatings applied to metal, wood construction materials and pre-fabricated cabinets, and fiberglass parts during motor home finishing and touch-up, with emissions exhausting fugitively into the building; and

(B) hand and aerosol spray application of miscellaneous solvents and cleaners.

2. A new Section D.8 is added to the permit, containing both construction and operation conditions applicable to the new production line as follows:

SECTION D.8 FACILITY CONDITIONS

Facility Description [326 IAC 2-8-4(10)]
(g) One (1) Class A - Line 2 (Diesel Pusher Production Line), producing a maximum of 0.375 units per hour, installed in 2002, consisting of the following:

(1) One (1) sub-assembly area, identified as AS-A3, consisting of:

(A) hand, roll, bead and aerosol spray application of miscellaneous coatings and adhesives applied to metal, wood construction materials and pre-finished wood cabinets, plastic, and fiberglass product parts during motor home assembly, with emissions exhausting fugitively into the building; and

(B) hand and aerosol spray application of miscellaneous solvents and cleaners.

(2) One (1) final finish area, identified as AFF-3, consisting of:

(A) hand and aerosol spray application of miscellaneous coatings applied to metal, wood construction materials and pre-fabricated cabinets, and fiberglass parts during motor home finishing and touch-up, with emissions exhausting fugitively into the building; and

(B) hand and aerosol spray application of miscellaneous solvents and cleaners.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 326 IAC 2-8-11.1, WITH CONDITIONS LISTED BELOW.

Construction Conditions

General Construction Conditions

D.8.1 This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

Effective Date of the Permit

D.8.2 Pursuant to IC 13-15-5-3, this section of this permit becomes effective upon its issuance.

D.8.3 All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for revisions pursuant to 326 IAC 2.

Operation Conditions

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.8.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

Any change or modification which may increase potential VOC emissions to twenty-five (25) tons per year at sub-assembly area AS-A3 or final finish area AFF-3 shall require OAQ's prior approval before such change can take place at either area. The VOC usage for wood furniture/cabinet coating at sub-assembly area AS-A3, and final finish area AAF-3, are not included in this determination for either area since such usage is regulated at Condition D.8.6.

D.8.5 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]

Any change or modification which may increase actual VOC emissions to fifteen (15) pounds per day when coating metal at sub-assembly area AS-A3 or final finish area AFF-3 shall require OAQ's prior approval before such change can take place at either area.

D.8.6 Volatile Organic Compounds (VOC) [326 IAC 8-2-12]

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), surface coatings applied to wood furniture and cabinets at sub-assembly area AS-A3 and final finish area AAF-3 shall utilize one of the following application methods:

Airless Spray Application
Air Assisted Airless Spray Application
Electrostatic Spray Application
Electrostatic Bell or Disc Application
Heated Airless Spray Application
Roller Coating
Brush or Wipe Application
Dip-and-Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

D.8.7 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter as overspray from the spray coatings applied at Class A - Line 2 sub-assembly area AS-A3 and final finish area AFF-3 each shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ **where E = rate of emission in pounds per hour; and**
P = process weight rate in tons per hour

Compliance Determination Requirements

D.8.8 Volatile Organic Compounds (VOC)

Compliance with the VOC emission limitations contained in Conditions D.8.4 and D.8.5 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer.

D.8.9 VOC Emissions

Compliance with Condition D.8.4 shall be demonstrated within 30 days of the end of each month based on the total VOC usage for the most recent twelve (12) month period.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

There are no applicable compliance monitoring conditions for these facilities.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.8.10 Record Keeping Requirements

(a) To document compliance with Conditions D.8.4, D.8.5 and D.8.6, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly, except where noted, and shall be complete and sufficient to establish compliance with the VOC usage/emission limits established in D.8.4, D.8.5 and D.8.6.

(1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(2) Method of application for wood furniture coatings used at sub-assembly and final finish areas AS-A3 and AFF-3;

(3) Monthly VOC usage for each of sub-assembly and final finish areas AS-A3 and AFF-3; and

(4) Daily VOC usage at each of sub-assembly and final finish areas AS-A3 and AFF-3, when coating metal parts.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Reporting Requirements

There are no applicable reporting requirements for these facilities.

3. All references in the permit to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) have been changed without replication herein to reflect the revised name of the permitting authority as the IDEM, Office of Air Quality (OAQ).

Conclusion

This permit revision shall be subject to the conditions of the attached proposed FESOP Permit No. 039-15345-00220.

Appendix A: Emission Calculations
VOC and Particulate
From Surface Coating Operations and Solvent Usage (Page 1 of 2)

Company Name: Four Winds International, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
Minor Permit Revision No.: 039-15345-00220
FESOP No.: 039-5814-00220
Reviewer: Michael Hirtler / EVP
Date: 01/10/02

Uncontrolled Potential to Emit --- Class A - Line 2 (Diesel Pushers):

Material (as applied)	Type of Material Coated	Density (Lb/Gal)	Weight % Volatile (H20& Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential ton/yr	lb VOC /gal solids	Transfer Efficiency	PM Control Efficiency
Facility: Sub-Assembly Area																		
Miscellaneous Coatings Applied																		
OSHA SAFETY YELLOW	metal, wood or fiberglass	6.39	57.90%	0.00%	57.90%	0.00%	15.00%	0.002	0.375	3.70	3.70	0.00	0.07	0.01	0.00	24.67	75%	0%
WD-40	metal	6.80	70.00%	0.00%	70.00%	0.00%	30.00%	0.011	0.375	4.76	4.76	0.02	0.47	0.09	0.01	15.87	75%	0%
SPRAYING T.P.E. DRY LUBE	metal	5.53	99.00%	0.00%	99.00%	0.00%	1.00%	0.001	0.375	5.47	5.47	0.00	0.05	0.01	0.00	547.47	75%	0%
SPRAY-ON WET LUBE	metal	6.80	80.50%	0.00%	80.50%	0.00%	16.00%	0.006	0.375	5.47	5.47	0.01	0.30	0.05	0.00	34.21	75%	0%
SPRAY-ON CUTTING OIL	metal	7.13	16.00%	0.00%	16.00%	0.00%	84.00%	0.001	0.375	1.14	1.14	0.00	0.01	0.00	0.00	1.36	75%	0%
												0.04	**0.89**	**0.16**	**0.02**			
										(fiberglass coating subtotal):		*0.00*	*0.07*	*0.01*	*0.00*			
										(wood coating subtotal):		*0.00*	*0.07*	*0.01*	*0.00*			
										(metal coating subtotal):		*0.04*	*0.89*	*0.16*	*0.02*			
Miscellaneous Adhesives Applied																		
UNIPLEX 260	wood and plastic	10.50	0.00%	0.00%	0.00%	0.00%	100.00%	0.383	0.375	0.00	0.00	0.00	0.00	0.00	1.65	0.00	75%	0%
PER-FECT LOK HOT METAL ADHESIVE 34-3182	wood and plastic	8.08	0.00%	0.00%	0.00%	0.00%	100.00%	0.014	0.375	0.00	0.00	0.00	0.00	0.00	0.05	0.00	75%	0%
SUPERTAK HIGH PERFORMANCE ADHESIVE	wood and plastic	6.40	49.38%	10.00%	39.38%	7.68%	50.63%	0.352	0.375	2.73	2.52	0.33	7.98	1.46	0.47	4.98	75%	0%
SUPERTAK TRIM ADHESIVE	wood and plastic	6.16	79.80%	10.00%	69.80%	7.40%	20.20%	0.003	0.375	4.64	4.30	0.00	0.12	0.02	0.00	21.29	75%	0%
STA-PUT II AEROSOL ADHESIVE	wood and plastic	5.93	79.93%	0.00%	79.93%	0.00%	20.07%	0.022	0.375	4.74	4.74	0.04	0.94	0.17	0.01	23.62	75%	0%
RUSSELL 676	wood and plastic	5.72	90.00%	31.70%	58.30%	21.77%	10.00%	0.157	0.375	4.26	3.33	0.20	4.71	0.86	0.04	33.35	75%	0%
STA-PUT IV H CYLINDER	wood and plastic	7.81	81.44%	0.00%	81.44%	0.00%	18.56%	0.335	0.375	6.36	6.36	0.80	19.18	3.50	0.20	34.27	75%	0%
STA-PUT IV H AEROSOL	wood and plastic	7.96	80.97%	0.00%	80.97%	0.00%	19.03%	0.062	0.375	6.45	6.45	0.15	3.60	0.66	0.04	33.87	75%	0%
ISOPROPYL ALCOHOL FOR CLEANUP	wood and plastic	6.50	99.00%	0.00%	99.00%	0.00%	0.00%	0.040	0.375	6.44	6.44	0.10	2.32	0.42	0.00	ERR	75%	0%
												1.62	**38.84**	**7.09**	**2.45**			
Miscellaneous Product Cleaning Materials Containing VOC																		
C-99 & C-100 CYCLO FAST STARTING FLUID		5.94	93.00%	0.00%	93.00%	0.00%	7.00%	4.6E-04	0.375	5.52	5.52	0.00	0.02	0.00	0.00	78.92	75%	0%
C-1 & C-5 CYCLO CARB CLEAN B-4668		6.88	100.00%	0.00%	100.00%	0.00%	0.00%	0.006	0.375	6.88	6.88	0.02	0.37	0.07	0.00	ERR	75%	0%
BRAKE PARTS & CLEANER CYCLO C-111		6.33	100.00%	20.00%	80.00%	15.20%	0.00%	0.018	0.375	5.97	5.06	0.03	0.82	0.15	0.00	ERR	75%	0%
CAMIE 22/90 CLEANER & DEGREASER		5.86	99.90%	0.00%	99.90%	0.00%	0.10%	0.046	0.375	5.85	5.85	0.10	2.42	0.44	0.00	5854.14	75%	0%
												0.15	**3.64**	**0.66**	**0.00**			
Miscellaneous Facility-Wide Solvent Usage																		
METHY ETHYL KETONE		6.71	100.00%	0.00%	100.00%	0.00%	0.00%	0.005	0.375	6.71	6.71	0.01	0.30	0.06	0.00	ERR	100%	0%
ACETONE *		6.61	100.00%	100.00%	0.00%	100.00%	0.00%	0.107	0.375	ERR	0.00	0.00	0.00	0.00	0.00	ERR	100%	0%
DYNASOLVE CU-5		8.83	97.00%	0.00%	97.00%	0.00%	3.00%	0.003	0.375	8.57	8.57	0.01	0.23	0.04	0.00	285.50	100%	0%
SOLVENT BLEND ETHANOL A-1		6.76	94.69%	0.00%	94.69%	0.00%	5.31%	0.081	0.375	6.40	6.40	0.19	4.67	0.85	0.00	120.55	100%	0%
												0.22	**5.20**	**0.95**	**0.00**			
Total Uncontrolled Potential to Emit from Class A - Line 2 Vehicle Sub-Assembly (tons per year):												**2.02**	**48.57**	**8.86**	**2.47**			

Appendix A: Emission Calculations
VOC and Particulate
From Surface Coating Operations and Solvent Usage (Page 2 of 2)

Company Name: Four Winds International, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
Minor Permit Revision No.: 039-15345-00220
FESOP No.: 039-5814-00220
Reviewer: Michael Hirtler / EVP
Date: 01/10/02

Uncontrolled Potential to Emit --- Class A - Line 2 (Diesel Pushers):

Material (as applied)	Substrate Type Coated	Density (Lb/Gal)	Weight % Volatile (H20& Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential ton/yr	lb VOC /gal solids	Transfer Efficiency	PM Control Efficiency
Facility: Final Finish Area																		
Miscellaneous Coatings Applied																		
SUPER DUTY RUBBING COMPOUND	fiberglass	10.66	50.00%	0.00%	50.00%	50.00%	0.00%	0.005	0.375	10.66	5.33	0.01	0.24	0.04	0.01	ERR	75%	0%
FLAT WHITE SPRAY PAINT 280	fiberglass	5.58	65.00%	0.00%	65.00%	35.00%	0.00%	0.003	0.375	5.58	3.63	0.00	0.10	0.02	0.00	ERR	75%	0%
GM FLEET WHITE	fiberglass	9.07	46.20%	0.00%	46.20%	53.80%	0.00%	3.0E-05	0.375	9.07	4.19	0.00	0.00	0.00	0.00	ERR	75%	0%
COLONIAL WHITE SPRAY (SPRAY 'N GO ENAMEL)	fiberglass or wood	6.66	63.00%	25.00%	38.00%	37.00%	0.00%	4.0E-04	0.375	4.02	2.53	0.00	0.01	0.00	0.00	ERR	75%	0%
SPRAY ON OD100 WHITE LITL	metal,wood or fiberglass	6.66	63.00%	0.00%	63.00%	60.00%	0.00%	0.006	0.375	10.49	4.20	0.01	0.23	0.04	0.01	ERR	75%	0%
TOUCH 'N TONE SPRAY PAINT	metal or wood	5.58	65.00%	0.00%	65.00%	35.00%	0.00%	0.055	0.375	5.58	3.63	0.07	1.80	0.33	0.04	ERR	75%	0%
SPRAY WAY FURNITURE POLISH 811	wood	7.16	50.00%	0.00%	50.00%	50.00%	0.00%	0.018	0.375	7.16	3.58	0.02	0.58	0.11	0.03	ERR	75%	0%
C-35 CYCLO RUBBERIZED UNDERCOATING	metal	9.33	100.00%	0.00%	100.00%	0.00%	0.00%	0.012	0.375	9.33	9.33	0.04	1.01	0.18	0.00	ERR	75%	0%
BBQ BLACK	metal	6.66	80.00%	0.00%	80.00%	0.00%	50.00%	0.010	0.375	5.33	5.33	0.02	0.48	0.09	0.01	10.66	75%	0%
												0.18	**4.44**	**0.81**	**0.10**			
										(fiberglass coating subtotal):		*0.02*	*0.57*	*0.10*	*0.02*			
										(wood coating subtotal):		*0.11*	*2.61*	*0.48*	*0.08*			
										(metal coating subtotal):		*0.15*	*3.51*	*0.64*	*0.06*			
Miscellaneous Product Cleaning Materials Containing VOC																		
CYCLO C-31 GLASS CLEANER		8.33	100.00%	0.00%	100.00%	0.00%	0.00%	0.021	0.375	8.33	8.33	0.07	1.57	0.29	0.00	ERR	75%	0%
CRAZY CLEAN 031		8.39	50.00%	0.00%	50.00%	50.00%	0.00%	0.050	0.375	8.39	4.20	0.08	1.89	0.34	0.09	ERR	75%	0%
SD-20 ALL PURPOSE CLEANER		8.33	23.00%	0.00%	23.00%	77.00%	0.00%	0.010	0.375	8.33	1.92	0.01	0.17	0.03	0.03	ERR	75%	0%
C-192 MAX CLEAN ALL PURPOSE CLEANER		8.33	98.00%	88.00%	10.00%	2.00%	0.00%	0.013	0.375	0.85	0.83	0.00	0.10	0.02	0.00	ERR	75%	0%
												0.16	**3.73**	**0.68**	**0.11**			
Miscellaneous Facility-Wide Solvent Usage																		
SOLVENT BLEND - MINERAL SPIRITS		6.58	100.00%	0.00%	100.00%	0.00%	0.00%	0.165	0.375	6.58	6.58	0.41	9.77	1.78	0.00	ERR	100%	0%
SOLVENT BLEND - S1241		6.41	100.00%	0.00%	100.00%	0.00%	0.00%	0.117	0.375	6.41	6.41	0.28	6.75	1.23	0.00	ERR	100%	0%
SOLVENT BLEND - S0114		7.08	100.00%	0.00%	100.00%	0.00%	0.00%	0.047	0.375	7.08	7.08	0.12	2.99	0.55	0.00	ERR	100%	0%
SOLVENT BLEND - PS8022 REDUCER		7.04	100.00%	0.00%	100.00%	0.00%	0.00%	0.063	0.375	7.04	7.04	0.17	3.99	0.73	0.00	ERR	100%	0%
SOLVENT BLEND - S1381		6.59	100.00%	0.00%	100.00%	0.00%	60.00%	0.576	0.375	6.59	6.59	1.42	34.16	6.23	0.00	10.98	100%	0%
SOLVENT BLEND - ETHANOL A-1 (190)		6.76	94.69%	0.00%	94.69%	5.31%	0.00%	0.389	0.375	6.76	6.40	0.93	22.41	4.09	0.00	ERR	100%	0%
												3.34	**80.08**	**14.61**	**0.00**			
Total Uncontrolled Potential to Emit from Final Finish Area (tons per year):												**3.68**	**88.25**	**16.11**	**0.21**			
Total Uncontrolled Potential to Emit from Sub-Assembly & Final Finish Areas (tons per year):												**5.70**	**136.82**	**24.97**	**2.68**			

	12-mos Input Usage Limit (VOC)	Control Efficiency (PM)	Controlled VOC lbs per Hour	Controlled VOC lbs per Day	Controlled VOC tons per Year	Controlled PM tons/yr
Total Controlled Potential to Emit from Sub-Assembly & Final Finish Areas (tons per year):	**0.00%**	**0.00%**	**5.70**	**136.82**	**24.97**	**2.68**

Methodology:

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids) * Transfer Efficiency
Total = Sum of Worst Coatings per booth + Sum of all solvents used
Controlled VOC Emission Rate = Uncontrolled Emission Rate * (1 - VOC Input Limitation)
Controlled PM Emission Rate = Uncontrolled Emission Rate * (1 - Control Efficiency)

* Pursuant to 326 IAC 1-2-48, acetone is a nonphotochemically reactive hydrocarbon and the organic content is considered as water for compliance calculation purposes.

Appendix A: Emission Calculations
Hazardous Air Pollutants (HAPs)
From Surface Coating Operations and Solvent Usage (page 1 of 2)

Company Name: Four Winds International, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
Minor Permit Revision No.: 039-15345-00220
FESOP No.: 039-5814-00220
Reviewer: Michael Hirtler / EVP
Date: 01/10/02

Potential Emissions from Class A - Line 2 (Diesel Pushers) (uncontrolled):

Material (as applied)	Density (Lb/Gal)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % MEK	Weight % toluene	Weight % MIBK	Weight % ethyl benzene	Weight % glycol ethers	Weight % methanol	Weight % hexane	HAP Emission Rates (tons per year) Xylene	MEK	toluene	MIBK	ethyl benzene	glycol ethers	methanol	hexane	Total All HAPs
Facility: Sub-assembly Area																				
Miscellaneous Coatings Applied																				
OSHA SAFETY YELLOW	6.39	0.002	0.375	25.00%	0.00%	1.00%	0.00%	4.00%	0.00%	0.00%	0.00%	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
WD-40	6.80	0.011	0.375	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPRAYING T.P.E. DRY LUBE	5.53	0.001	0.375	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPRAY-ON WET LUBE	6.80	0.006	0.375	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPRAY-ON CUTTING OIL	7.13	0.001	0.375	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												0.01	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**
Miscellaneous Adhesives Applied																				
UNIPLEX 260	10.50	0.383	0.375	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PER-FECT LOK HOT METAL ADHESIVE 34-3182	8.08	0.014	0.375	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUPERTAK HIGH PERFORMANCE ADHESIVE	6.40	0.352	0.375	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUPERTAK TRIM ADHESIVE	6.16	0.003	0.375	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	70.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02
STA-PUT II AEROSOL ADHESIVE	5.93	0.022	0.375	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02
RUSSELL 676	5.72	0.157	0.375	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	35.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.52
STA-PUT IV H CYLINDER	7.81	0.335	0.375	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STA-PUT IV H AEROSOL	7.96	0.062	0.375	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ISOPROPYL ALCOHOL FOR CLEANUP	6.50	0.040	0.375	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												0.00	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.56**	**0.56**
Miscellaneous Product Cleaning Materials Containing VOC																				
C-99 & C-100 CYCLO FAST STARTING FLUID	5.94	4.6E-04	0.375	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C-1 & C-5 CYCLO CARB CLEAN B-4668	6.88	0.006	0.375	0.00%	10.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.01
BRAKE PARTS & CLEANER CYCLO C-111	6.33	0.018	0.375	0.00%	0.00%	30.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.06
CAMIE 22/90 CLEANER & DEGREASER	5.86	0.046	0.375	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												0.00	**0.01**	**0.06**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.07**
Miscellaneous Facility-Wide Solvent Usage																				
METHY ETHYL KETONE	6.71	0.005	0.375	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.06
ACETONE *	6.61	0.107	0.375	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DYNASOLVE CU-5	8.83	0.003	0.375	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SOLVENT BLEND ETHANOL A-1	6.76	0.081	0.375	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.09
												0.00	**0.06**	**0.00**	**0.09**	**0.00**	**0.00**	**0.00**	**0.00**	**0.15**
Total Uncontrolled Potential to Emit from Class A - Line 2 Vehicle Sub-Assembly (tons per year):												**0.01**	**0.06**	**0.06**	**0.09**	**0.01**	**0.00**	**0.00**	**0.56**	**0.78**

Appendix A: Emission Calculations
Hazardous Air Pollutants (HAPs)
From Surface Coating Operations and Solvent Usage (Page 2 of 2)

Company Name: Four Winds International, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
Minor Permit Revision No.: 039-15345-00220
FESOP No.: 039-5814-00220
Reviewer: Michael Hirtler / EVP
Date: 01/10/02

Potential Emissions from Class A - Line 2 (Diesel Pushers) (uncontrolled):

Material (as applied)	Density (Lb/Gal)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % MEK	Weight % toluene	Weight % MIBK	Weight % ethyl benzene	Weight % glycol ethers	Weight % methanol	Weight % hexane	HAP Emission Rates (tons per year) Xylene	MEK	toluene	MIBK	ethyl benzene	glycol ethers	methanol	hexane	Total All HAPs
Facility: Final Finish Area																				
Miscellaneous Coatings Applied																				
SUPER DUTY RUBBING COMPOUND	10.66	0.005	0.375	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FLAT WHITE SPRAY PAINT 280	5.58	0.003	0.375	0.00%	0.00%	15.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GM FLEET WHITE	9.07	3.0E-05	0.375	13.00%	0.00%	0.00%	0.00%	2.62%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
COLONIAL WHITE SPRAY (SPRAY 'N GO ENAMEL	6.66	4.0E-04	0.375	5.00%	10.00%	32.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPRAY ON OD100 WHITE LITL	6.66	0.006	0.375	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOUCH 'N TONE SPRAY PAINT	5.58	0.055	0.375	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPRAY WAY FURNITURE POLISH 811	7.16	0.018	0.375	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C-35 CYCLO RUBBERIZED UNDERCOATING	9.33	0.012	0.375	0.00%	0.00%	20.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.04
BBQ BLACK	6.66	0.010	0.375	10.00%	0.00%	20.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.03
												0.01	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.08**
Miscellaneous Product Cleaning Materials Containing VOC																				
CYCLO C-31 GLASS CLEANER	8.33	0.021	0.375	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CRAZY CLEAN 031	8.39	0.050	0.375	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SD-20 ALL PURPOSE CLEANER	8.33	0.010	0.375	0.00%	0.00%	0.00%	0.00%	0.00%	8.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01
C-192 MAX CLEAN ALL PURPOSE CLEANER	8.33	0.013	0.375	0.00%	0.00%	0.00%	0.00%	0.00%	6.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01
												0.00	**0.00**	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.02**
Miscellaneous Facility-Wide Solvent Usage																				
SOLVENT BLEND - MINERAL SPIRITS	6.58	0.165	0.375	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SOLVENT BLEND - S1241	6.41	0.117	0.375	0.00%	0.00%	30.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.37
SOLVENT BLEND - S0114	7.08	0.047	0.375	10.00%	0.00%	70.00%	10.00%	0.00%	0.00%	10.00%	0.00%	0.05	0.00	0.38	0.05	0.00	0.00	0.05	0.00	0.55
SOLVENT BLEND - PS8022 REDUCER	7.04	0.063	0.375	0.00%	0.00%	70.00%	0.00%	0.00%	20.00%	0.00%	0.00%	0.00	0.00	0.51	0.00	0.00	0.15	0.00	0.00	0.66
SOLVENT BLEND - S1381	6.59	0.576	0.375	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SOLVENT BLEND - ETHANOL A-1 (190)	6.76	0.389	0.375	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.43	0.00	0.00	0.00	0.00	0.43
												0.05	**0.00**	**1.26**	**0.49**	**0.00**	**0.15**	**0.05**	**0.00**	**2.00**
Total Uncontrolled Potential to Emit from Final Finish Area (tons per year):												**0.07**	**0.00**	**1.33**	**0.49**	**0.00**	**0.17**	**0.05**	**0.00**	**2.10**
Total Uncontrolled Potential to Emit from Sub-Assembly and Final Finish Areas (tons per year):												**0.07**	**0.06**	**1.38**	**0.58**	**0.01**	**0.17**	**0.05**	**0.56**	**2.88**
Total Controlled/Limited Potential to Emit from Sub-Assembly and Final Finish Areas (tons per year):												**0.07**	**0.06**	**1.38**	**0.58**	**0.01**	**0.17**	**0.05**	**0.56**	**2.88**

Methodology:
Uncontrolled Potential HAP Emission Rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs
Limited Potential HAP Emission Rate (tons/yr) = Uncontrolled Potential HAP Emission Rate * Coating Material Input Limit (such that single HAP emissions <10 tpy and total HAP emissions < 25 tpy)

* Pursuant to 326 IAC 1-2-48, acetone is a nonphotochemically reactive hydrocarbon and the organic content is considered as water for compliance calculation purposes.